

REMARKS/ARGUMENTS

The amendment is in response to the Final Office Action dated November 1, 2005.

Claims 1, 5-9, 13-17, and 21-24 are pending in the present application. Applicant has changed claims 1, 5-7, 9, 13-15, 17, and 21-23, and canceled claims 4, 12, 20, and 25-27 in this amendment. Accordingly, claims 1, 4-9, 13-17, and 20-27 remain pending in the present application.

Applicant has incorporated the subject matter of dependent claims into independent claims in this amendment. Specifically, the subject matter of claims 4 and 25 have been incorporated into independent claim 1, the subject matter of claims 12 and 26 have been incorporated into independent claim 9, and the subject matter of claims 20 and 27 have been incorporated into independent claim 17; and minor amendments have been made for consistency. Accordingly, no new issues have been presented for further search and/or consideration, and Applicant respectfully requests that the present amendment be entered and the application allowed.

103 Rejections

The Examiner rejected claims 1, 4-9, 12-17, and 20-27 under 35 U.S.C. §103(a) as being unpatentable over Ponnekanti (U.S. Patent No. 6,606,626) in view of Klein et al. (U.S. Publication 2002/0038313) (“Klein”). Applicant has amended independent claims 1, 9, and 17 to clarify these inventions by including subject matter from particular dependent claims. Thus, no new matter is introduced and no new issues are raised by this amendment.

Specifically, Applicant has incorporated the subject matter of claims 25 and 4 into claim 1, so that claim 1 recites determining that a specific row satisfies the set of predicates of the query

and returning the specific row, wherein the step of returning the specific row further comprises requesting a lock on the specific row that satisfies the set of predicates; suspending the scan, if the requested lock is refused; repeating the request for a lock and re-evaluating the specific row when the lock is permitted; and returning the specific row if the specific row still satisfies the set of predicates of the query. Claims 9 and 17 have been amended similarly, incorporating the subject matter of their dependent claims 12 and 26, and 20 and 27, respectively.

As the Examiner states in the Final Office Action of November 1, 2005, Ponnekanti does not disclose or suggest Applicant's feature of claims 1, 9, and 17 of skipping a non-satisfying row, including when a lock is currently held on that row and an update on that row has not yet committed while the lock is held. Ponnekanti teaches that when the data does not qualify for a locked row in which an update has not committed, the scanning process waits on the lock until the lock may be granted, and does not skip the row as in Applicant's invention.

The Examiner cites paragraph 18 of Klein as teaching skipping of a particular row when a lock is currently held on the row and an update on the row has not yet committed while the lock is held. Klein discloses a scanning process that includes a "skip conflict mode" that will skip rows that are locked, and if the process is in a "streaming mode," the an entry is added in a scan list which allows the process to later process the skipped row after the lock has been released.

Klein discloses that a scanning operator skips over rows that are locked in a conflicting mode, without regard for the data in that row. Klein's skip conflict mode never evaluates the data of the row to see if it satisfies the predicates of the query—he just automatically skips a row if it is locked, to gain maximum scanning speed. This scanner may come back to process (evaluate) the row at a later time after the lock is released (if the process is in streaming mode) (page 8, para. 128-130). Thus, Klein's skip conflict mode does not teach or suggest scanning

using Applicant's evaluating each scanned row to determine whether the row satisfies the set of predicates. Furthermore, Klein does not teach Applicant's suspending of a scan when a locked row is determined to satisfy the query and the lock is refused, as recited by Applicant.

Combination of References

The combination of Ponnekanti and Klein does not teach or suggest Applicant's invention. Ponnekanti discloses a process in which rows are evaluated, but in which a locked, non-qualifying row is not skipped if an update is uncommitted. Klein discloses that, in his skip conflict mode, all locked rows are skipped, regardless of the data in those rows or committed/uncommitted status. If someone were to combine these references, the result would be Ponnekanti's scanning process that has a separate skip conflict mode like Klein's, in which all locked rows can be automatically skipped without evaluating the data of the row. There is no suggestion in Klein of allowing the evaluation of a locked row, skipping the locked row and continuing the scan when the predicates do not satisfy the query, and suspending the scan when the predicates of a row do qualify and waiting for the lock to be permitted. Klein's skip conflict mode does not care about evaluating rows, and thus would not be able to suggest to Ponnekanti to skip a locked row when the row does not qualify and suspend the scan when the row does qualify. Klein suggests to skip all locked rows, and mentions nothing about conditional skipping of uncommitted, updated rows based on an evaluation of the rows with respect to the query, as recited by Applicant's claims. Therefore, this feature cannot be incorporated into Ponnekanti to achieve Applicant's invention.

Applicant therefore believes that claims 1, 9, and 17 are patentable over Ponnekanti in view of Klein.

Claims 5-8 are dependent from claim 1 and are patentable over Ponnekanti in view of Klein for at least the same reasons as claim 1 and for additional reasons. Similarly, claims 13-16 and claims 20-24 are dependent from claims 9 and 17, respectively, and are patentable over Ponnekanti in view of Klein for at least the same reasons as their parent claims and for additional reasons.

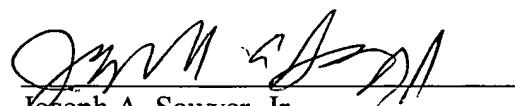
Conclusion

In view of the foregoing, Applicants respectfully submit that Ponnekanti in view of Klein fails to teach or suggest the inventions as recited in the pending claims. Accordingly, Applicants respectfully submit that claims 1, 5-9, 13-17, and 21-24 are allowable over the cited references. Applicants respectfully request reconsideration and allowance of the claims as now presented.

Applicant's attorney believes that this application is in condition for allowance. Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,
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Date



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